Kinetic separation of hexane isomers by fixed-bed adsorption with a microporous metal-organic framework

Author(s): Barcia PS (Barcia, Patrick S.), Zapata F (Zapata, Fatima), Silva JAC (Silva, Jose A. C.), Rodrigues AE (Rodrigues, Alirio E.), Chen BL (Chen, Banglin) Source: JOURNAL OF PHYSICAL CHEMISTRY B Volume: 111 Issue: 22 Pages: 6101-6103 Published: JUN 7 2007 Times Cited: 52 References: 20 Citation Map Abstract: A three-dimensional microporous metal-organic framework Zn(BDC)(Dabco)(0.5) (BDC = 1,4-benzenedicarboxylate, Dabco = 1,4-diazabicyclo [2,2,2]octane), having two types of intersecting pores to encapsulate linear hexane and to block branched hexanes, and thus exhibiting highly selective sorption with respect to n-hexane, has been successfully applied to the kinetic separation of hexane isomers by fixed-bed adsorption. Document Type: Article Language: English KeyWords Plus: COORDINATION POLYMERS; ZEOLITE; PELLETS; DESIGN Reprint Address: Chen, BL (reprint author), Univ Texas Pan Amer, Dept Chem, Edinburg, TX 78541 USA Addresses:
1. Univ Texas Pan Amer, Dept Chem, Edinburg, TX 78541 USA
2. Inst Politecn Braganca, Escola Super Tecnol & Gestao, P-5301857 Braganca, SP Portugal
3. Univ Porto, Lab Separat & React Engn, Dept Engn Quim, P-4200465 Oporto, Portugal E-mail Addresses: banglin@utpa.edu Publisher: AMER CHEMICAL SOC, 1155 16TH ST, NW, WASHINGTON, DC 20036 USA Subject Category: Chemistry, Physical IDS Number: 172ZC ISSN: 1520-6106 DOI: 10.1021/jp0721898